In the Claims:

1. (cancelled)

2. (currently amended) The method of claim ~~1~~ 6, wherein treating step is carried out by contacting said surface portion to a solvent carrying said reagent.

3. (Original) The method of claim 2, wherein said solvent comprises liquid carbon dioxide.

4. (Original) The method of claim 2, wherein said solvent comprises supercritical carbon dioxide.

5. (currently amended) The method of claim ~~1~~ 6, wherein said dielectric surface portion comprises an etch-exposed surface portion.

6. (currently amendedl) ~~The method of claim 1~~, A method of treating a dielectric surface portion of a semiconductor substrate, comprising the steps of:
   (a) providing a semiconductor substrate having a dielectric surface portion; and then
   (b) treating said dielectric surface portion with a reagent of the formula A_m-X_n-B_o, wherein:
   A is a reactive group,
   m is an integer of from 1 to 3,
   X is a linking group,
   n is an integer of from 0 to 20,
   B is a coordinating group having a metal bound thereto; and
   o is an integer of from 1 to 3,
so that said metal is deposited on said dielectric surface portion to produce a surface portion treated with a metal;
   wherein said dielectric surface portion comprises a porous low k dielectric material.

7. (currently amended) The method of claim ~~1~~ 6, wherein said metal is selected from the group consisting of Pt, Pd, Rh, Ni, Ru, Co, Au, Zr, Mo, Ag, Cr, W, Ta, Hf, V, and Zn..

8. (currently amended) The method of claim ~~1~~ 6, wherein said linking group is an organic or silicon linking group.

9. (currently amended) ~~The method of claim 1,~~ A method of treating a dielectric surface portion of a semiconductor substrate, comprising the steps of:

(a) providing a semiconductor substrate having a dielectric surface portion; and then

(b) treating said dielectric surface portion with a reagent of the formula A_m-X_n-B_o, wherein:

A is a reactive group,

m is an integer of from 1 to 3,

X is a linking group,

n is an integer of from 0 to 20,

B is a coordinating group having a metal bound thereto; and

o is an integer of from 1 to 3,

so that said metal is deposited on said dielectric surface portion to produce a surface portion treated with a metal;

wherein said reactive group is selected from the group consisting of silanes, silanols, halosilanes, acetoxysilanes, enoxysilanes, oximosilanes, alkoxysilanes, aminosilanes, epoxides, and isocyanates.

10. (currently amended) ~~The method of claim 1,~~ A method of treating a dielectric surface portion of a semiconductor substrate, comprising the steps of:

(a) providing a semiconductor substrate having a dielectric surface portion; and then

(b) treating said dielectric surface portion with a reagent of the formula A_m-X_n-B_o, wherein:

A is a reactive group,

m is an integer of from 1 to 3,

X is a linking group,

n is an integer of from 0 to 20,

B is a coordinating group having a metal bound thereto; and

o is an integer of from 1 to 3,

so that said metal is deposited on said dielectric surface portion to produce a surface portion treated with a metal;

wherein said treating step is carried out by:

(i) treating said dielectric surface portion with a reagent of the formula $A_m\text{-}X_n\text{-}B_o$, wherein:

A is a reactive group,

m is an integer of from 1 to 3,

X is a linking group,

n is an integer of from 0 to 20,

B is a coordinating group; and

o is an integer of from 1 to 3; and then

(ii) binding a metal to said coordinating group so that said metal is bound to said dielectric surface portion.

11. (currently amended) The method of claim ~~1~~ 6, wherein said treating step is carried out by:

(i) providing a reagent of the formula $A_m\text{-}X_n\text{-}B_o$, wherein:

A is a reactive group,

m is an integer of from 1 to 3,

X is a linking group,

n is an integer of from 0 to 20,

B is a coordinating group having a metal bound thereto; and

o is an integer of from 1 to 3; and then

(ii) treating said dielectric surface portion with said coating reagent so that said metal is bound to said surface portion.

12. (Original) ~~The method of claim 1, further comprising the step of:~~ A method of treating a dielectric surface portion of a semiconductor substrate, comprising the steps of:

(a) providing a semiconductor substrate having a dielectric surface portion; and then

(b) treating said dielectric surface portion with a reagent of the formula $A_m\text{-}X_n\text{-}B_o$,
wherein:

A is a reactive group,

m is an integer of from 1 to 3,

X is a linking group,

n is an integer of from 0 to 20,

B is a coordinating group having a metal bound thereto; and

o is an integer of from 1 to 3,

so that said metal is deposited on said dielectric surface portion to produce a surface portion
treated with a metal; and then

_(c)_ depositing a barrier material on said treated surface portion to form a barrier layer
thereon.

13. (Original) The method of claim 12, wherein said barrier material comprises a metal,
ceramic, or metal alloy.

14. (Original)   The method of claim 12, wherein said depositing step is carried out
exposing said surface portion to a metal chelate in the presence of a reducing reagent.

15. (Original) The method of claim 12, wherein said barrier material is selected from the
group consisting of tantalum, tantalum nitride, titanium nitride, tungsten, tungsten nitride, cobalt,
cobalt nitride, cobalt phosphide, cobalt boride, cobalt tungsten phosphide, cobalt tugnsten boride,
ruthenium, ruthenium nitride, ruthenium phosphide, and ruthenium boride.

16. (Original) The method of claim 12, wherein said barrier material does not penetrate
through said surface portion into said semiconductor substrate during said depositing step.

17. (Original) The method of claim 12, further comprising the step of:
_(d)_ depositing a metal on said barrier layer to form a metal seed layer.

18. (Original) The method of claim 17, wherein said metal is copper.

19. (Original) The method of claim 12, further comprising the step of filling a patterned feature containing said barrier layer with a metal.

20. (Original) The method of claim 19, wherein said metal is copper.

21-29 (cancelled)